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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,036	07/30/2003	Noah Horton	100110411-1	9022

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EXAMINER

CASCHERA, ANTONIO A

ART UNIT PAPER NUMBER

2676

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/631,036

Applicant(s)

HORTON ET AL.

Examiner

Antonio A. Caschera

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9,15,18,19 and 24 is/are allowed.
- 6) ☒ Claim(s) 1,3,10,13,20,26 and 30 is/are rejected.
- 7) ☒ Claim(s) 2,4-8,11,12,14,16,17,21-23,25,27-29 and 31-35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character “#142” has been used to designate both a memory and a graphics adapter (see Figure 9). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled “Replacement Sheet” in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3, 10, 13, 20, 26 and 30 rejected under 35 U.S.C. 102(b) as being anticipated by Miller et al. (U.S. Patent 5,561,756).

In reference to claims 1, 10, 20 and 26, Miller et al. discloses a method and apparatus for rendering texture spheres and spherical environment maps (see column 3, lines 28-29). Miller et al. discloses rendering using two different texture maps; 1) a parametric spherical environment map and a screen-lookup table (see columns 5-6, lines 67-20). Miller et al. further discloses the map and table stored in a RAM (see column 5, lines 49-54). Note, the Office interprets the parametric map and screen-lookup table functionally equivalent to Applicant's PTM and non-PTM (parametric texture map) respectively. Note, the screen-lookup table is seen by the Office as equivalent to a texture map since it uses (u,v) coordinates and since its entries provide data representative of the current viewpoint (see column 6, lines 19-25). Miller et al. further discloses the parametric map based upon a rotation in the polar axis while the screen-lookup table is based upon rotation in the horizontal axis (see column 6, lines 36-44). Miller et al. further discloses determining if rotation about either a horizontal or polar axis is required and decides on which offset to use in either the parametric map or screen-lookup table (see column 6, lines 36-44). Miller et al. discloses a computer system for performing the above rendering techniques, the system comprising a processor and graphics accelerator (see column 5, lines 35-51) either of which, inherently performs the actual mapping of texture data, as interpreted by the Office. Note, in reference to claims 10 and 20, since the parametric map is based upon a rotation in the polar axis and the screen-lookup table coordinates are not, the Office interprets the rotation in the polar axis equivalent to the "parameter" of Applicant's claims since the parameter is variable in the parametric map and constant or zero in the screen-lookup table. Further in reference to claim 26, Miller et al. discloses displaying the textured sphere (see column 11, lines 61-63 and Figure 8).

In reference to claims 3, 13 and 30, Miller et al. discloses all of the claim limitations as applied to claims 1, 10 and 26 respectively above. Since Miller et al. discloses that the rotational offsets used in both parametric map and screen-lookup table are related with the user's viewpoint (see last 3 lines of abstract), the Office interprets that the utilization of either parametric map or screen-lookup table is based upon the viewing angle for the graphical object.

Allowable Subject Matter

3. Claims 9, 15, 18, 19 and 24 are allowed.

In reference to claims 9, 15 and 24, the prior art of record (Miller et al. (U.S. Patent 5,561,756), Lake et al. (U.S. Patent 6,822,658 B1) and Migdal et al. (U.S. Patent 6,417,860 B1)) does not explicitly disclose the value indicative of a user's viewpoint, weighted based on at least two of a group consisting of: a distance between the user's viewpoint and a graphical object, a viewing angle of the graphical object, and an amount of visible surface area of the graphical object, in combination with the further limitations of claims 9, 15 and 24.

In reference to claims 18 and 19, the prior art of record (Miller et al. (U.S. Patent 5,561,756), Lake et al. (U.S. Patent 6,822,658 B1) and Migdal et al. (U.S. Patent 6,417,860 B1)) does not explicitly disclose determining a value indicative of a user's viewpoint, comparing the value to a threshold and selecting either a PTM or non-PTM version of a texture map when rendering, in combination with the further limitations of claims 16 and 18.

4. Claims 2, 4-8, 11, 12, 14, 16, 17, 21-23, 25, 27-29 and 31-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. The addition of claims 33-35 is noted.

6. Applicant's arguments, see page 14 of Applicant's Remarks, filed 04/08/05, with respect to the objection of the specification have been fully considered and are persuasive. The objection of the specification has been withdrawn since minor informalities have been corrected for.

7. Applicant's arguments, see page 14 of Applicant's Remarks, filed 04/08/05, with respect to the objection of the drawings have been fully considered but are not persuasive. The objection of the drawings still suffer from an informality, in particular #142 of Figure 9 which has been used to designate both a memory and a graphics adapter. Although the specification has been corrected to compensate for the informality, Figure 9 still comprises two #142's. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the office action to avoid abandonment of the application

8. Applicant's arguments, see page 14 of Applicant's Remarks, filed 04/08/05, with respect to the 112 2nd paragraph rejection of claims 1, 10, 18 and 19 have been fully considered and are persuasive. The 112 2nd paragraph rejection of these claims has been withdrawn since a lack of antecedent basis has been corrected for.

9. Applicant's arguments, see pages 15-20, filed 04/08/05, with respect to the rejection(s) of claim(s) 1-8, 10-14, 16-23 and 25-32 under 35 USC 102 & 103 based upon Lake et al. and Migdal et al. have been fully considered and are persuasive. Therefore, the rejection has been

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withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Miller et al..

References Cited

10. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure:

- a. Malzbender et al. (U.S. Pub 2002/0060679 A1)
 - Malzbender et al. discloses a graphics system that employs parametric texture maps when rendering surface features of a 3D object.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:30 AM and 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached at (571) 272-7778.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

aac

6/23/05

A handwritten signature in black ink, reading "Matthew C. Bella". The signature is fluid and cursive, with the first name "Matthew" and last name "Bella" clearly legible.

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600